



BHARATHIDASAN UNIVERSITY

Tiruchirappalli- 620 023, India

**DEPARTMENT OF
REMOTE SENSING**

PROFILE

National Recognitions

AICTE

UGC INNOVATIVE PROGRAMME

UGC SAP (DRS-I)

DST FIST

DST PURSE

Hi-TECH LAB – GOVERNMENT OF TAMIL NADU

Faculty Members

Dr.K.PALANIVEL

Associate Professor & Head

Dr.D.RAMESH

Associate Professor

Dr.A.BALUKKARASU

Associate Professor

Dr.C.LAKHSUMANAN

Assistant Professor

Dr.J.SARAVANAVEL

Assistant Professor

Mr. A.MUTHAMIL SELVAN

Assistant Professor

Prof. Dr.SM.RAMASAMY

Professor of Eminence

Preface

Duly recognising the astonishing out pour of newer, first time and frontline packages of information in the cutting edge areas of Earth System Sciences and Earth System Dynamics from Remote sensing and GIS technologies, in a short span of five years of existence of the then School of Earth Sciences, the Bharathidasan university has established the Centre for remote sensing in the year 1994. Since then, the centre has been on the race in multiple fronts of academia and made rapid strides in teaching, research and extension.

The unique and innovative programme of **M.Tech., Geological Remote Sensing and Geoinformatics**, the first of its kind in the whole country and launched in 1995 has attracted the students of geology from all over the country and the alumni are occupying coveted positions in the academia, Remote sensing and GIS industries in the country and abroad too. The phenomenal surge from the Geospatial industries has also prompted the centre to launch a special programme in 2004 on **M.Sc., Geoinformatics** widening the antenna to Geology, Computer Science and Agriculture disciplines which yielded far fetching dividends to the alumni of the programme. Stimulated by the current needs of the Indian sub-continent in the aspects of Natural Resources, Natural Disasters and Geoinformatics, the Department is now offering a Six Year Integrated **M.Tech., Geological Technology & Geoinformatics** since 2008.

The Department has also concurrently embarked on Doctoral Research in emerging areas of Remote Sensing and GIS in Earth sciences and so far over **35 Ph.D.s** have been produced in path breaking areas of Geological Remote Sensing.

The Department has also made credible marks in sponsored research too and so far executed over **60 projects** funding to the tune of more than **₹ 2000 Lakhs**, funded by the Government of India organisations like **DST, OIDB, BRNS, ISRO, NRSC, Rajiv Gandhi National Drinking Water Mission, UGC, MOES**, etc.; Government of Tamil Nadu departments like **Planning and Development, State Planning Commission, TWAD Board, TNCS&T, TNEB, IWS-Chennai** and International agencies like **World Bank** and **Australian Research Council**.

The Department has also conducted several consultancy projects providing solutions to the Government. The Department has played a key role in extension academia and conducted over **60 Refresher Courses** for the University and College teachers under the funding of **UGC, DST** and **ISRO**. The outputs of the path breaking research by the faculties has lead to the

International Collaborations and Networking with Melbourne University, Australia; Kuwait University, Kuwait; Asian Institute of Technology, Bangkok; Waterloo University, Canada; Norwegian Geotechnical Institute, OSLO; Mexico University, Mexico; National University, Singapore, etc.

The then Centre upgraded now to the Department of Remote Sensing, excelling in academic and extension activities, which almost tops in the University in bringing external research grant, had been recognized as Centres of Excellence in Remote Sensing by the Government of Tamil Nadu.

The faculty members have published over 300 Scientific Articles in Refereed Journals and over 15 Books / Edited Volumes. The Faculties as Members chaired a number of National Committees, Scientific Bodies, and Editorial Boards, widely travelled abroad on various academic assignments and conferred a number of awards too.

Head
Department of Remote Sensing

Objectives

- The main objectives of the Department of Remote Sensing (DRS) are to conduct multi-frontal and multi-faceted academia in Remote Sensing and GIS enabled Earth System Sciences and Earth system Dynamics addressing Natural Resources inventory, modeling of palaeo and time transgressive geological processes, modeling of Geological Ecosystems, Natural Disasters, Geoinformatics including Spatial Decision Support Systems, by
 - ➔ Conducting innovative and time demanding Academic Programmes,
 - ➔ Conducting Doctoral and sponsored research in topics of local needs, regional specific and national relevance,
 - ➔ Organizing Workshops, Seminars, Conferences, Training Programmes, Refresher Courses, to benefit the wider cross sections of the academia, planning hierarchy and the society and
 - ➔ Publishing scintillating scientific findings through publication of Books, Monographs and Reports.

Vision and Mission

- To take the Department of Remote Sensing (DRS) to global standards on Geological Remote Sensing and Geoinformatics.
- To conduct advanced academic programmes, focused research of National and Global needs and capacity building programmes and
- To generate adequate man power to meet the future National and Global challenges in Natural Resources, Natural Disasters, Geological Ecosystems and Geoinformatics planning.

Research Interest

Faculty-I Dr. K. PALANIVEL, Associate Professor & Head



Area of Research/Specialization:

- Application of Remote Sensing, GIS (Geoinformatics) Query Based Spatial Information Retrieval Systems (QUBIS) and Spatial Decision Support Systems (SDSS) in
 - Water Resources Prospecting, Conservation & Management
 - Hydrocarbon (Petroleum and Natural Gas) Prospecting
 - Heavy Placer Mineral Resources prospecting & mapping
 - Natural Disaster Hazard Zonation, Mitigation & Management with special reference to Landslide, Tsunami, Flood, Seismicity, Soil Erosion & Reservoir Siltation.

Dr. K. PALANIVEL
Associate Professor & Head

Achievements made in Teaching/Research/Extension

No. of Research Publications / Books	: 40 Articles / 2 Books
No. of papers presented in Conferences	: 28
h-index	: 04
i-10 index	: 02
Total Citations	: 73
Programs/Workshops/Trainings Organized	: 17
Products Developed	: (i) NRDMs - Spatial Information Retrieval System for Pudukkottai District,
	(ii) Query Based Information Retrieval System for Theni, Dindigul and Madurai Districts, Tamil Nadu
	(iii) Information System for identification of Strategies for Mapping of S&T Needs of Tamil Nadu State.
	(iv) Groundwater Prospect and Groundwater Quality maps for Goa and Andaman & Nicobar Islands, prepared and published in the ISRO / NRSC web portal "BHUJAL".
Projects Completed/Ongoing	: 14 completed / 02 ongoing
Consultancies Completed	: 01

Awards and Recognitions

- External Examiner to conduct Ph.D., public Viva-voce Exam
- Expert Member, Board of Studies, Dept. of Geology, Govt. Arts College, Salem
- Chairperson for Scientific Sessions in International/National Conference.

Research Group Members

- Lifetime Member in Geological Society of India
- Lifetime Member in Indian Society of Geomatics
- Lifetime Member in Mineralogical Society of India
- Lifetime Member in Swadesi Science Movement
- Lifetime Member in Tamil Nadu Science Forum.

Past Members

1. Chairman – Question Paper Setters Board – Alagappa University, Annamalai University & Bharthidasan University
2. Member – Board of Studies, Department of Remote Sensing & Department of Geography, Bharathidasan University
3. Member – Passing Board, Department of Remote Sensing, BDU and KUFOS, Panangad, Kochin
4. Member – NAAC-Consolidation Committee, Bharathidasan University
5. Member – Doctoral Committee & Department Research Committee, BDU.

Faculty-II **Dr.D.Ramesh**, Associate Professor

Area of Research/Specialization:

Remote Sensing and GIS for

- ✓ coastal zone studies,
- ✓ Coastal geomorphology,
- ✓ Watershed management and
- ✓ Seismic microzonation.



Dr.D.Ramesh
Associate Professor

Achievements made in Teaching/Research/Extension

No. of Research Publications	: 15
No. of papers presented in Conferences	: 25
h-index	: 03
i-10 index	: 02
Total Citations	: 37
Projects Completed/Ongoing	: 02/02

Awards and Recognitions

- Recipient of visiting fellowship from Tropical Marine Science Institute (TMSI), National University of Singapore (NUS) for research discussions on coastal evolution and sea level changes along Tamil Nadu coast

Research Group Members

- Life Member: Indian Society of Remote Sensing (LM-4546)
- Life Member: Indian Institute of Geomorphologists (LM-520)
- Life Member: Indian Society of Geomatics (LM-1743)
- Life Member: Indian Society for Technical Education (ISTE)
- Life Member: International Association of Hydrological Sciences (IHE), UK
- Life Member: Society of Earth Scientists (SES), India

Past Members

1. Member, Board of Studies, Tamil University, Thanjavur
2. Member, Board of Studies, Madurai Kamaraj University, Madurai
3. Member, Board of Studies, Periyar University, Salem.

Faculty-III Dr.A.BALUKKARASU, Associate Professor

Area of Research/Specialization:

1. Petrological and Geochemical studies of Rocks.
2. Structure and Tectonic Studies of Sedimentary rocks in Tamil Nadu and Kerala.
3. Mapping and Mineral Exploration for Platinum Group of Elements, Coal and Lignite.



Dr.A.BALUKKARASU
Associate Professor

Achievements made in Teaching/Research/Extension

No. of Research Articles-GSI Published	: 12 / 2 Books
No. of Research Publications in Journals	: 20
No. of papers presented in Conferences	: 07
Programs/Workshops/Trainings Organized	: 1

Awards and Recognitions

- National Mineral Award 2007 for discovery of huge lignite deposit in Ramnad sub basin, Cauvery Basin

Research Group Members

- Life Member: Indian Society of Geomatics

Past Members

1. External Examiner to conduct Ph.D., Public Viva-voce examination
2. External Member - evaluated Ph.D., thesis.

Faculty-IV Dr.C.LAKSHUMANAN, Assistant Professor & Coordinator

Area of Research/Specialization:

Remote Sensing & GIS for

- ✓ Coastal and Marine Area Studies
- ✓ Disaster Management &
- ✓ Wetland Geochemistry, carbon sequestration
- ✓ Watershed management, Hill area Development



Dr.C.LAKSHUMANAN
Assistant Professor

Achievements made in Teaching/Research/Extension

No. of Research Publications	: 47
No. of papers presented in Conferences	: 45
h-index	: 59
i-10 index	: 54
Total Citations	:162
Projects Completed/Ongoing	: 07/ 08
Programs/Workshops/Trainings Organized	: 5

Awards and Recognitions

- Post Doctoral fellowship-2004, KORDI, SEOUL, South Korea
- Young Scientist 2007 –Dept. of Science and Technology (DST), Govt. of India
- INDO-MEXICAN VISITING PROFESSORSHIP – 2011, IPN, Mexico
- Coordinator, Centre for Disaster Management and Coastal Research.

Research Group Members

- Member, American Geophysical Union (AGU)
- Life Member: Indian Society of Remote Sensing
- Life Member: Indian Society of Geoinformatics
- PAGES (past Global Changes)

Past Members

1. Anna university, Chennai, Civil engineering - Board of Study member for Geo-informatics
2. Department of Remote sensing, BDU- Board of Studies
3. CGIT, BDU – Member, Clean Green Initiatives, BDU
4. Researcher, Asian Tsunami Disaster Mapping Research Team
5. Member, Alliance of Indo-Mexican Geoscientific Research Group.

Faculty-V Dr. J. SARAVANAVEL, Assistant Professor

Area of Research/Specialization:

- ❖ **Remote Sensing and GIS based visualization and modelling of Modern Geological Processes viz.**
 - ➔ Neo-Active tectonic movements
 - ➔ Riverine processes
 - ➔ Coastal processes, etc., and
 - ➔ Their control over natural resources, ecological systems and natural disasters of South India.



Dr. J. SARAVANAVEL
Assistant Professor

Achievements made in Teaching/Research/Extension

No. of Research Publications	: 38
No. of papers presented in Conferences	: 11
h-index	: 05
i-10 index	: 01
Total Citations	: 102
Projects Completed/Ongoing	: 08

Awards and Recognitions

- External Expert Member of Board of Studies, Government Arts College, Salem
- Expert Member of Board of Studies, Department of Geography & Remote Sensing, BDU

Research Group Members

- Life Member: Indian Society of Geomatics
- Life Member: Tamil Nadu Science Forum

Past Members

1. Member, Doctoral Committee & Department Research Committee, BDU.
2. Member, Selection Committee, BDU.

Faculty-VI Mr.A. MUTHAMILSELVAN, Assistant Professor

Area of Research/Specialization:

Mineral and Radioactive Mineral Exploration through Multidisciplinary approach such as

- Geological,
- Geophysical,
- Geochemical and
- Geomatics Technologies.



A. MUTHAMILSELVAN
Assistant Professor

Achievements made in Teaching/Research/Extension

No. of Research Publications in Journals	: 13
No. of papers presented in Conferences	: 04
h-index	: 02
Total Citations	: 08
Projects Ongoing	: 01

Awards and Recognitions

- CSIR – NET

Research Group Members

- Life Member: Journal of ISRS
- Life Member: Journal ISG

Past Members

1. Expert Member of Board of Studies, Department of Remote Sensing, BDU.

Honorary Professor - Dr. SM.RAMASAMY, Professor of Eminence

Area of Research/Specialization:

Remote Sensing and GIS based modeling and visualization of Palaeo - Time transgressive - Active Geological Systems and Processes for

- Mineral, Hydrocarbon and Water Resources exploration
- Earth Ecosystem modeling in hill, plain, riverine, coastal and desertic systems including the life histories of the rivers and the coastal areas
- Natural Disasters mapping, mitigation and management and
- Spatial Decision Support Systems for sustainable development



Prof. SM. Ramasamy
Professor of Eminence

Achievements made in Teaching/Research/Extension

No. of Research Publications	: 150
No. of papers presented in Conferences	: 89
Popular Article in News paper	: 119
h-index	: 16
i-10 index	: 36
Total Citations	: 1225
Projects Completed/Ongoing	: 36
Consultancies Completed/Ongoing	: 6

Awards and Recognitions

- Received the "**First Indian Remote Sensing Award**" in 1992 from Indian Society of Remote Sensing, ISRO, Dehradun.
- Received the "**TANSA**" (Tamil Nadu Scientist's Award) in 1997 from Govt. of Tamilnadu, Chennai.
- Received the "**CLUMA Award**" for the outstanding contribution in Remote Sensing and GIS for Earth Sciences in 2005 from Consortium of Landuse Managers(CLUMA), Hyderabad.
- "**National Geomatics Award-2010**" for Innovative Applications of Space and Spatial Technology for Earth Sciences by Indian Society of Geomatics, ISRO, Ahmadabad.
- Nominated as **life time Fellow of Indian Society of Geomatics** 2013
- Nominated as **Life time Fellow of Indian society of Remote sensing** 2016

Research Group Members

International

- Chair International Society of Photogrammetry and Remote Sensing (ISPRS) PRAQE- 2012-2016, Group VIII- Geology and Mineral Resources.
- Member, Editorial Board, International Journal of Geoinformatics, Bangkok, Thailand.
- Member, Editorial Board, International Journal of Earth Sciences and Engineering

- Member, Editorial Board, International Journal of Disaster Advances
- Honorary Editor, American Bibliographical Society
- Peer Reviewer, International Journals of Remote Sensing, Hydrogeology and Geoinformatics.
- Consultant, Govt. of Iran on Geological Remote Sensing projects. (1994)
- Consultant / Advisor, Global Scan Technology, UAE, Dubai.(since 2003 onwards)
- Indian Counterpart, of project on Active Tectonics and Environment Visualisation (collaborative project with Melbourne University, Australia)
- Convener, Environmental Geomorphology Working Group, South Asian Geological Congress (GEOSAS) (1995-1998)
- Resource Person, Remote Sensing courses, University Technology, Malaysia (1988)
- Working Group Member, in a number of International Geological Correlation programmes (IGCP).
- Elected Member, New York Academy of Sciences
- Referred in Marqui's Who is Who (outstanding scientists of the world) in 1996, 1997, 2004, 2005, 2006 & 2007.
- Chairperson, Technical sessions in more than 25 International Conferences.

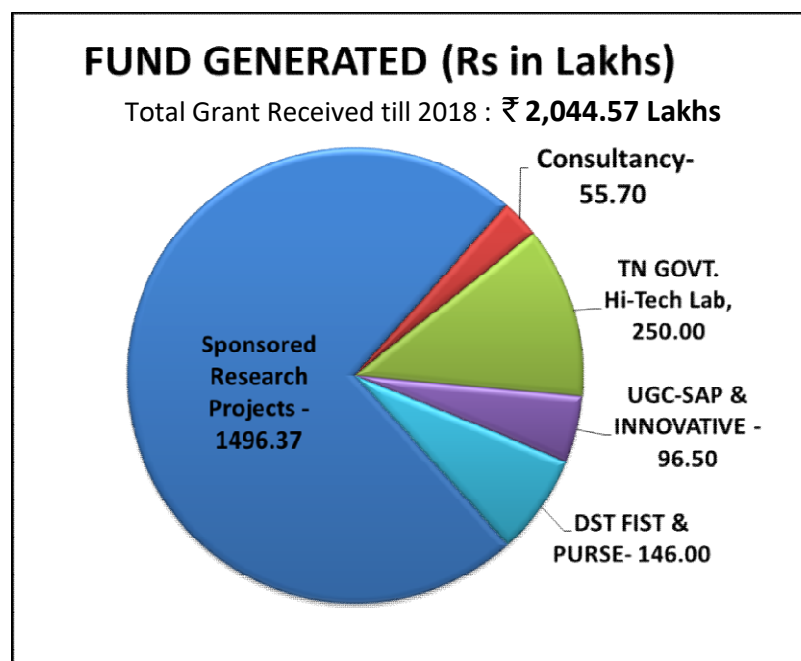
National

- Member, Editorial Advisory Board, Gondwana Geological Magazine, Nagpur (2006 onwards)
- Peer Reviewer, Scientific papers in Journals of Geological Society of India, Jour. Indian Society of Remote Sensing, Current Science, Indian Journal of Geomatics, etc.
- Member, National Expert Committee on Mining Environment, Ministry of Environment and Forest, New Delhi (2000 – 2002).
- Expert Committee Member in DST (NRDMS), New Delhi, (2001 - 2003)
- Member, Steering Committee, National Resources Data Management System (NRDMS), Govt. of India, New Delhi, DST, New Delhi (2010 – 2012)
- Member, Expert Committee on Geohazards, DST, New Delhi (2010 – 2013)
- Chairman, DST Special Committee on Uttarakhand Flood Assessment (2011)
- Chairman, Black Shale Study Project, Dept. of Science and Technology, Govt. of India, New Delhi(2012)
- Expert Member, Planning and Advisory Committee, NRDMS, DST, New Delhi (2009 - 2012,2012-2015,2015-2018)
- Member, Expert Committee on Geo Hazards, DST, New Delhi(2009 onwards)
- Member, Expert committee, Madhya Pradesh Council for Science and Technology – Bhopal
- Chairperson –AGSWSS (Application of Geo-Sciences and other Relevant Areas for Weaker Sections of Society), DST, New Delhi (2010 onwards)
- Chairperson, Planning and Monitoring Committee(PMC), Landslides Committee, DST, New Delhi

- Member, Advisory committee member, Indian Institute of Advanced Studies – Shimla (2010 onwards)
- EC Member, Rajiv Gandhi National Institute of Youth Development (RGNIYD)– Sriperumbudur (2010 onwards)
- Member, Mahatma Gandhi Institute of Rural Industrialisation – Wardha (2010 onwards)
- Member, DST– NRDMS Expert Com, DST– NRDMS Expert Com. On Capacity Building & Training
- Member, Research Council, Research Council of RGNGWTRI, Raipur
- National Coordinator, Project "Digital reconstruction of Poompuhar"-net working project by DST, New Delhi 2017 onwards
- National Coordinator, Project Coastal Hazards Risk Assessment (CHRA) net working project by DST, New Delhi.

Tamil Nadu State

- Member, Water Resources Sub Group for drafting VIII & IX Plan proposal for Govt. of Tamil Nadu
- Advisory Board Member, M.S. Swaminathan Research Foundation in Coastal Zone Projects (1996 – 1998).
- PAC Member, Remote Sensing, World Bank aided Water Resources Consolidation Project, Chennai (1995 – 1998).
- Expert Panel Member in GIS, Government of Tamilnadu (Since 1995).
- Member, Standing Committee on Irrigation & Water Resources, Government of Tamil Nadu (1990-93)
- Council Member, Tamil Nadu State Council for Science and Technology, Government of Tamil Nadu, Chennai (2003-2006).
- Expert Member in Gulf of Mannar Bio Reserve (GEF) Project of Government of Tamil Nadu. (2002 – 2007)
- Working group member, XIth plan proposal on Higher Education in State Planning Commission (2006-2007)
- Council Member, Tamil Nadu State Council for Science and Technology, Chennai (2010-2013)
- Technical Advisor, OADB Project, Bharthidasan University (2009 onwards)
- Governor's Nominee in Planning Board, Alagappa University, Karaikudi (2012-2015)
- Member, Planning and Monitoring Board, Karpagam University, Coimbatore (2011-2014)
- Expert Committee Member, SWARMA, Water Resources Project of Govt. of Tamil Nadu (2010 onwards)
- Working group member, XII Plan, Higher Education, State Planning Commission – Chennai.



Details of Research & Consultancy Projects – Appendix-I

Number of completed Sponsored Research Projects: 52 Nos.

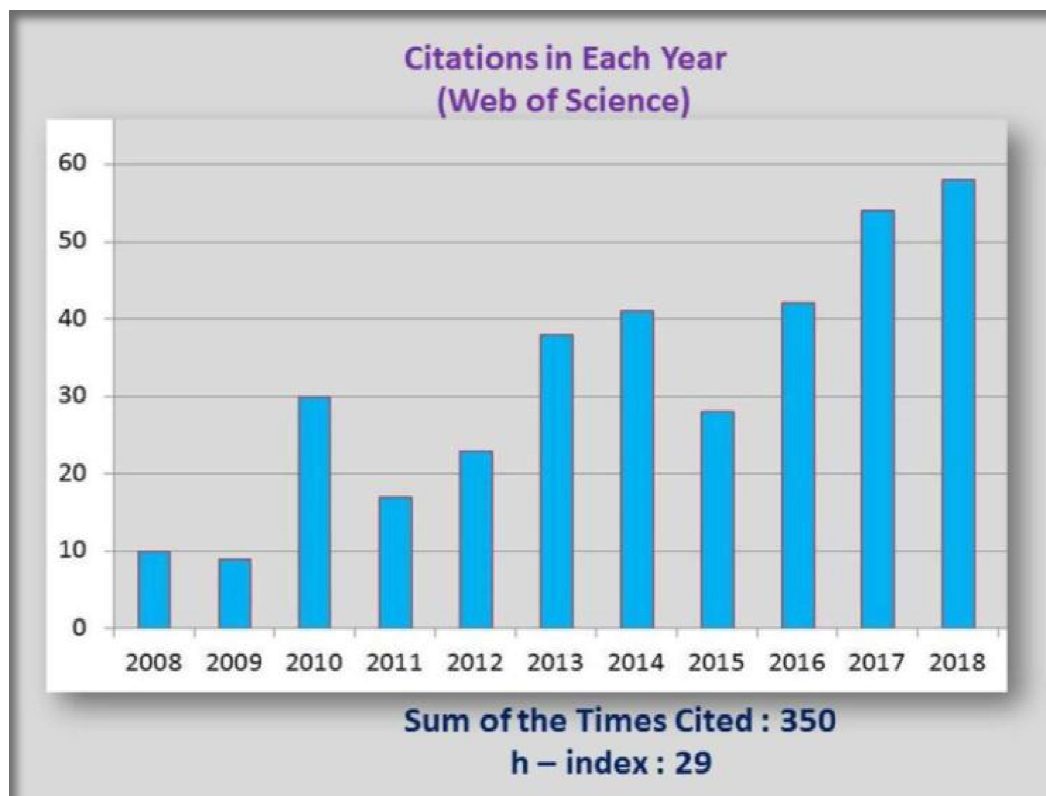
Number of on-going Sponsored Research Projects: 5 Nos.

Number of Consultancy Projects: 7 Nos.

Collaborative Project: 1 No.

**Details of Fellowships being availed by the
Research Scholars/Project Staff**

S. No.	Name	Reg. No.	Fellowship
1.	Arunachalam N	16834	Senior Research Fellow
2.	ThamaraiKannan S	19312	Junior Research Fellow
3.	Karthick S	---	Junior Research Fellow
4.	Vasavi A	---	Junior Research Fellow
5.	Jeyachandran N	5377	Senior Research Fellow
6.	Melwyn Joshua R	33440	Junior Research Fellow
7.	Kathiravan R	33439	Junior Research Fellow
8.	Ramalingam N	---	Senior Research Fellow
9.	PathanJuberkhan	---	Junior Research Fellow
10.	Rajasimman V.A.B	---	Senior Research Fellow
11.	Kumaraganesh U	33438	Junior Research Fellow
12.	Mohammad Ansari I	---	Junior Research Fellow
13.	Rajaperumal R	33441	Junior Research Fellow
14.	Karthick P	38045	University Research Fellow
15.	Rajesh J	---	University Research Fellow
16.	Sathiyaseelan S	46618	Junior Research Fellow
17.	SmitaPriyadarsini Rout	14724	Junior Research Fellow
18.	Madhavan D	14723	Research Associate
19.	Dhinesh S	---	Junior Research Fellow
20.	Vijay A	---	Junior Research Fellow
21.	Aravind S	---	Junior Research Fellow
22.	Sujithrasreelakshmi D	---	Junior Research Fellow
23.	Parimala V	---	Junior Research Fellow
24.	Pandian M	---	Junior Research Fellow
25.	Vishnu cholar K	---	Junior Research fellow
26.	Govindaraj V	24881	University Research Fellow
27.	Prabaharan S	---	Post doctoral Fellow – UGC KOTHARI
28.	Ramki P	28520	University Research Fellow
29.	Kumaresan PR	26660	Junior Research Fellow
30.	Sinduja J	---	Junior Research Fellow
31.	Sajimol S	26659	Research Fellow – DST PURSE
32.	Ravichandran M	---	Post doctoral Fellow – UGC KOTHARI
33.	Santhosh Kumar B	41023	University Research Fellow



List of Research Publications since 2013-14 to 2017-18 – enclosed as Appendix II

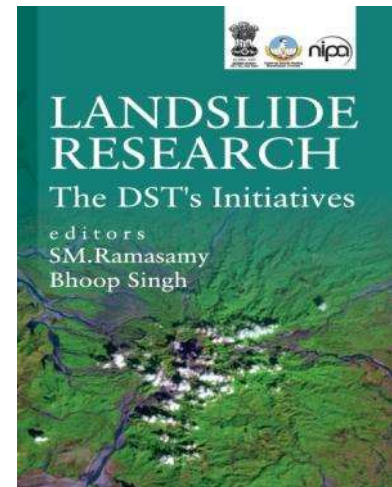
➔ **58 Numbers of Research papers published in National and International journals.**

Books and Edited Volumes Published: 5 Nos.

→ Published by: New India publishing Agency,
New Delhi **LANDSLIDE RESEARCH: The
DST's Initiatives**

*Contains over 20 number of articles from the
Remote Sensing and GIS based studies carried out
by the Indian Scientists on Landslide*

→ Authored by : Dr.SM. Ramasamy & Bhoop Singh

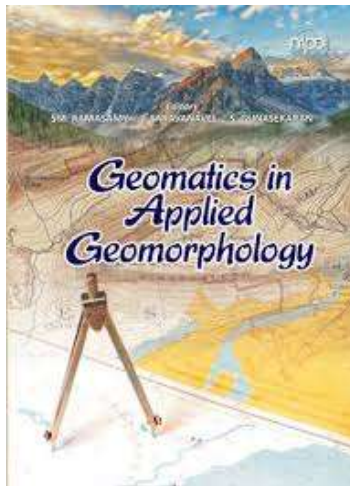


GEOMATICS IN APPLIED GEOMORPHOLOGY

→ Contains over 20 number of articles on Hill, Fluvial
and coastal Geomorphology, Quaternary Tectonics
and Geohazards

→ Authored by: Dr.SM. Ramasamy, J.Saravanavel &
S. Gunasekaran

→ Published by: New India publishing Agency, New Delhi.

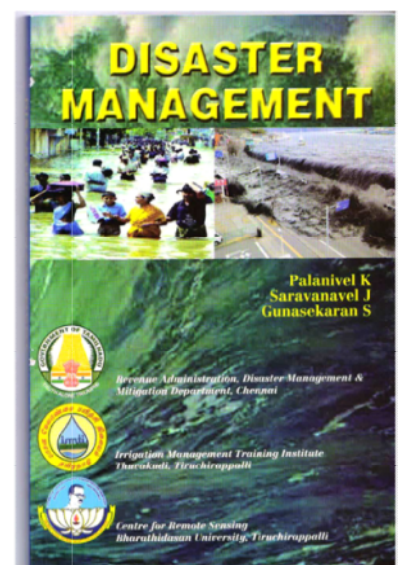


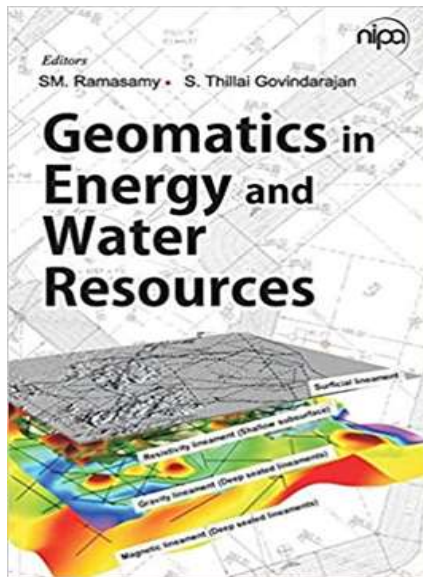
DIASATER MANAGEMENT

→ Text Book prepared for the trainees of IMTI, Thuvakkudi,
with 7 Chapters contains extracts about the basic
Geological aspects of Natural Disasters, their characters,
Geoinformatics technology based applications for
Disaster Mitigation and Management

→ Authored by: Dr. K. Palanivel, Dr. J. Saravanavel &
Dr. S. Gunasekaran

→ Published by: Irrigation Management Training Institute
(IMTI), Thuvakkudi, Tiruchirappalli





GEOMATICS IN ENERGY AND WATER RESOURCES

→ *Contains over 23 number of articles on Geomatics based exploration of energy, mineral and Water Resources.*

Authored by: Dr.SM. Ramasamy & S. Thillai Govindarajan

→ Published by: New India publishing Agency, New Delhi.

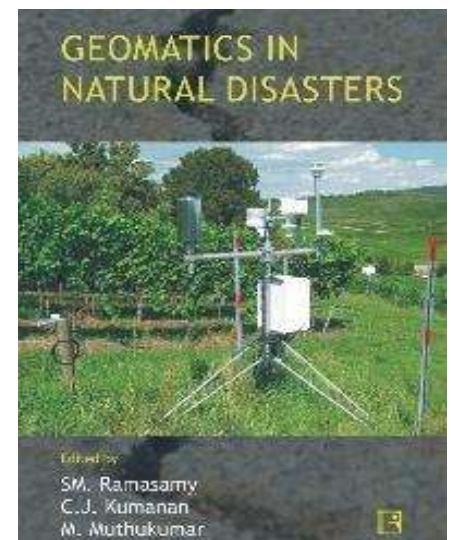
GEOMATICS IN NATURAL DISASTERS

→ *Book consists of 24 leading scientific articles written by the author on Geomatics based Disaster Mitigation and management models for various natural disasters such as Earthquake, Landslide, Tsunami, Flood, Sea Level Rise, Coastal Erosion, etc.,*

→ Authored by : Dr. SM. Ramasamy, Dr. C.J. Kumanan & Dr. M. Muthukumar

→ Published by: Rawat publishers, New Delhi.

Web site: www.rawatbooks.com



Conferences/Workshops/Seminars Organized

S. No.	Conferences/Workshops/Seminars	Period
1.	MHRD sponsored -GIAN 5 days training course on "Paleo climate education for Geological past Anthropocene using Geospatial methods"	03-12-2018 to 07-12-2018
2.	Training programme for Faculty Members of IMTI and Assistant Engineers of WRD, PWD on "Advanced GIS" ,	18.06.2018 to 21.06.2018
3.	33 rd EDUSAT IIRS Outreach Programme on "Advanced Image Analysis" , Indian Institute of Remote Sensing, ISRO, DoS, Government of India, Dehradun.	04.06.2018 to 15.06.2018
4.	32 nd EDUSAT IIRS Outreach Programme on "Geospatial Modeling for Watershed Management" , Indian Institute of Remote Sensing, ISRO, DoS, Government of India, Dehradun.	01.05.2018 to 07.05.2018
5.	31 st EDUSAT IIRS Outreach Programme on "RS & GIS applications in Water Resources" , Indian Institute of Remote Sensing, ISRO, DoS, Government of India, Dehradun.	16.04.2018 to 27.04.2018
6.	Special Training Course on "Remote Sensing and GIS Application in Civil Engineering with Special Emphasis on Water Resources Management" funded by PWSTI, Tiruchy	29.01.2018 to 02.02.2018
7.	Induction Training on "Remote Sensing & GIS Applications in Water Resources Project" to the Newly recruited Assistant Engineers, WRD, PWD – 3 rd Batch coordinated at IMTI, Thuvakudi	05.02.2018 to 08.02.2018
8.	Induction Training on "Remote Sensing & GIS Applications in Water Resources Project" to the Newly recruited Assistant Engineers, WRD, PWD– 2 nd Batch coordinated at IMTI, Thuvakudi	27.12.2017 to 30.12.2017
9.	Induction Training on "Remote Sensing & GIS Applications in Water Resources Project" to the Newly recruited Assistant Engineers, WRD, PWD– 1 st Batch coordinated at IMTI, Thuvakudi	20.12.2017 to 23.12.2017
10.	UGC sponsored National Seminar on "Multidisciplinary Approach for Mineral Exploration"	17.02.17
11.	2 DAY DST NRDMS National Workshop on "Art of Project Writing and Management Using Geospatial Technology"	27-01-2017 to 28-01-2017
12.	UGC Sponsored National Seminar on "Disaster Management & Preparedness Geomatics and Socio-Economic issues"	24-02-2016
13.	National Seminar on "Geospatial Technology in Natural Resources and Environmental Management"	18-02-2015
14.	National Seminar on "Principles and Applications of Ground Penetrating Radar"	14-11-2014 to 15-11-2015
15.	3 day Training Program on "Isodynamic Magnetic Separator"	20-01.2014 to 22.01.2014
16.	3 day Training Program on "LEICA TS 09 – LEICA Geo Office and LISCAD Software for Data Processing"	26.12.2013 to 28.12.2013
17.	State level Workshop on "Rainwater Harvesting" organized under the <i>aegis</i> of Quasquicentennial year celebration of Alumni of Geology Department, Presidency College, Chennai	30.10.2013
18.	3 day Training Programmme on "ESRI India Advanced Course on ENVI"	28.08.2013 to 30.08.2013
19.	8th Int. congress on "Climate change, Territorial classification and socioeconomic crises" , Bharathidasan University and IPN Mexico.	April, 2013

Programmes offered

1. 2 Year Post P.G **M.Tech., Geological Remote Sensing and Geoinformatics**
2. **M.Sc. Geoinformatics (2005 to 2010)**
3. 6 Year Integrated **M.Tech., Geological Technology and Geoinformatics** and
4. **Ph. D., Geological Remote Sensing.**

1. 2 Year Post P.G **M.Tech., Geological Remote Sensing and Geoinformatics**

Program objectives

The objectives of **M.Tech., Geological Remote Sensing and Geoinformatics** programme are:

- Provide a wide spectrum of advanced expertise available in this area to the students
- Develop excellent skill to work in any relevant advanced field of Geoinformatics.
- Demonstrate the various Earth System Processes, playing key role for handling any type of natural resources exploration, natural disaster mitigation and sustainable management of the resources
- Develop ability to engage in a productive research career, including publications, grant writing and conference presentations.
- Inculcate in a variety of institutional settings, including universities, industry and government research labs.

Eligibility

For admission: A Candidate of this university or any recognized University with Master's Degree in Geology / Applied Geology / Marine Geology / Mineral Exploration / Hydrogeology or who possesses a Post graduate accepted by the Syndicate as equivalent there to and has a minimum of 55% marks in their Master's Degree Examinations is eligible.

Selection Procedure

Selection will be made on the basis of merit list prepared from the performance in written test / interview conducted by the University.

Programme structure – enclosed as Appendix III (a).

2. 6 Year Integrated M.Tech., Geological Technology and Geoinformatics

Program objectives

- Provide basic and advanced concepts of Geology, Geoinformatics and the Geoinformatics applications in Geology to the students
- Develop excellent skills to work in any relevant advanced field of Geoinformatics.
- Demonstrate the various Earth System Processes, playing key role for handling any type of natural resources exploration, natural disaster mitigation and sustainable management of the resources
- Develop ability to engage in a productive research career, including publications, grant writing and conference presentations.
- Inculcate in a variety of institutional settings, including universities, industry and government research labs.

Eligibility

For admission : A Candidate who has passed the Higher Secondary Examination (Plus Two) conducted by the Board of Secondary Education of Tamil Nadu, or CBSE or an examination equivalent thereto with any combinations of Physics, Chemistry, Zoology, Botany, Mathematics, Computer Science.

Selection Procedure

Selection will be made on the basis of merit list prepared from the +2 marks scored by the candidate and the performance in written test / interview conducted by the University.

Programme structure – enclosed as Appendix III (b).

3. Ph. D., Geological Remote Sensing

Program objectives

- Develop substantive knowledge in their area of specialization.
- Demonstrated ability to engage in a productive research career, including publications, grant writing and conference presentations.
- Excel in a variety of institutional settings, including universities, industry and government research labs, and think tanks.
- Demonstrate an understanding and concern for the high ethical standards in business research, teaching, and service.

Eligibility

A Candidate of this university or any recognized University with M.Sc., Geology / Applied Geology / M.Tech. Geological Technology and Geoinformatics / Geoinformatics / Earth science / Marine Geology / Mineral Exploration / Hydrogeology or who possesses a Post graduate accepted by the Syndicate as equivalent there to and has a minimum of 55% marks in their Master's Degree Examinations is eligible for registration for the degree of Doctorate of philosophy.

Selection Procedure

Selection will be made on the basis of merit list prepared from the performance in written test / interview conducted by the University. CSIR / UGC-NET qualified candidates will be given preference. However in exceptional cases, candidates without NET may be considered upon satisfactory results in written test / interview.

Programme structure – enclosed as Appendix III (c).

Students' achievements (2013-14 to 2017-18)

S. No.	Reg. No.	Name	Exam(s) Qualified
1.	36123558	Mahendran	TN-SET
2	36123535	Sivasankari T	TN-SET

Awards Received by students/scholars

Year	Name of the Awarded Students	National Awards	
		Name of the Award	Awarding Institution
2016	Prabaharan S	PDF	UGC-DRDS Kothari Fellowship
2018	Ravichandran M	PDF	UGC-DRDS Kothari Fellowship

Ph. D. Awardees / 2 Yr. Post PG M. Tech., Gold Medalists / 6 Yr. Int. M. Tech., Gold Medalists

Ph. D. Awardees		6 Yr. Int. M. Tech., Gold Medalists	
Name	Year of passing	Name	Year of passing
Thirukumaran V	2012	Arun G	2014
Viveganandan S	2012	Muthukumar S	2015
Safiullah G	2013	Arunachalam M	2016
Santhya G	2013	Vasanthkumar T	2017
Pradeep Kishore V	2013	Bhagyavarshini V	2018
Muralitharan J	2014		
Mahalingam S	2014	2 Yr. Post PG M. Tech., Gold Medalists	
Muthukumar S	2016	Aradhana S	2017
Rajesh	2018		

FACILITIES

COMPUTER GIS LAB



REMOTE SENSING PRACTICAL LAB



MINERALOGY & PETROLOGY LAB



PHOTOGRAMMETRY LAB



REMOTE SENSING LIBRARY



GEOCHEMICAL LAB



GEOLOGY MUSEUM



DATA BANK

ISODYNAMIC MAGNETIC SEPARATOR IN
SEDIMENTOLOGY LABMICROSCOPIC STUDY OF MINERAL AND ROCK
THIN SECTIONS

GEOPHYSICAL INSTRUMENTS



DISPLAY GALLERY



Conferences, Seminars and Workshop

Er.Muthuvel, Additional Director, IMTI, Thuvakudi is delivering inaugural address to the participants of training program on Advanced GIS organized at Department of Remote Sensing, BDU on 18.06.2018



A Participant is honored with Certificate by the Registrar, BDU in valedictory function on 2.2.2018 of 5 day training program of PWSTI, Tiruchirappalli



Two Days Workshop on Art of Project Writing and Management in Geospatial Technology. 27th – 28th January 2017



National Seminar on Remote Sensing & GIS for Disaster Mitigation & Management DM2-2015 on 13 -14th March, 2015.



Group photograph with participants of IMTI, Thuvakudi, Tiruchirappalli in a Training Program on "Advanced GIS" held during 18.06.2018 and 21.06.2018



GPR Training Course on 14.11.2014



Departmental Activities

Dr.I.C. Das, Head-Hydrogeology Division, NRSC, Hyderabad delivering Invited Lecture to the students of M.Tech., on 14.03.2018 during his visit for External Quality Checking for project "RGNDWM-IV Andman& Nicobar islands



Senior Research Scholar Mr.R.Kathiravan explaining the working modality of Isodynamic Magnetic Separator to the students in Science day Expo held on 28.02.2018



M.Tech. Final year student explains the method of stereoscopic visualization of terrain using aerial photographs to the other department students of BDU in the Science day Expo held on 28.02.2018



Tamil Ponneelan Writer special lecture on 19.02.2016



Group photo with International Geoinformatics Expert cum Alumnus Dr.Kumaranraju on 16.02.2017 after delivering special lecture to the students



Release of Abstract Volume of Student's Seminar
Feb 2015 by the Faculties



Pa .Krishnamoorthi Tamil Lecture on 21.02.2015



Project Review Meeting by BRNS, DAE, AMD



Prof. RaoDivi Special lecture on " The Recent
Advances in Geology of Gulf Region" on 15.10.2015



Book Release on Tamilnadu State Council for
Science and Technology



Faculties and Students attending EDUSAT – online
interactive program telecasted from IIRS,
Dehradun co-ordinated at the Department of
Remote Sensing, BDU



Contact us

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Appendix I

Research & Consultancy Projects

Completed Projects: 52 Nos.

S. No.	Principal Investigator	Project Title	Period		Funding Agency	Amount (in lakhs)
			From	To		
1.	Prof.SM. Ramasamy	Project “RIMIGTA” River Cauvery’s Migration in Tamil Nadu	1990	1993	ISRO,DOS, Bangalore	5.50
2.	Prof.SM. Ramasamy	Project “MOCASY” Modelling of Crystalline Aquifer System, Vellar Basin, Tamil Nadu	1990	1993	DST, New Delhi	3.52
3.	Prof.SM. Ramasamy	Project “RECHARGE” Remote Sensing for Artificial Recharge in Ayyar basin ,Tamil Nadu	1991	1993	Tamil Nadu State Council for Science and Technology, Chennai.	2.50
4.	Prof.SM. Ramasamy	Project “CORE LAND” Remote Sensing for Coastal Resources Evaluation	1994	1996	State Planning Commission, Chennai	3.50
5.	Prof.SM. Ramasamy	Project “NEOTECTA” Detection of Neotectonic zones in Tamil Nadu through Integrated Remote Sensing studies- Tamil Nadu	1994	1996	DST, New Delhi	8.70
6.	Prof.SM. Ramasamy	Project “LANDSLIDES” Predictive and Preventive Modelling for Landslides (Nilgiris)	1994	1997	DST, New Delhi	7.50
7.	Prof.SM. Ramasamy	Project “IMSD” Integrated Mission for Sustainable Development	1994	1996	National Remote Sensing Agency, Hyderabad.	13.90
8.	Prof.SM. Ramasamy	Project “TECSI” Tectonic Studies of South India	1994	1997	UGC, New Delhi.	6.10
9.	Prof.SM. Ramasamy	Project “ CISRES ” Creation and Strengthening of infrastructure in Remote Sensing	1995	1999	AICTE, New Delhi.	25.00
10.	Prof.SM. Ramasamy	Project “WATMAN” Water Management Plan for Karur District, Tamil Nadu	1997	1998	Tamil Nadu Water Supply and Drainage Board	9.80
11.	Prof.SM. Ramasamy	Project “ GISWASH ” GIS for Watershed Development for Thogaimalai Watershed	1997	1998	Tamil Nadu State Council for Science & Technology, Chennai.	0.85
12.	Prof.SM. Ramasamy	Project “RENWE” Resource and Environment of Hill Eco System using remote sensing and GIS	1997	1999	Planning and Development	22.00
13.	Prof.SM. Ramasamy	Project “MOFRASY” Modelling of Fractured Aquifer Systems in central Tamil Nadu	1997	1999	Rajiv Gandhi National Drinking Water Mission, New Delhi.	10.00

14.	Prof.SM. Ramasamy	Project “WATSHED” Water and Soil Conservation Measures for Kombai Watershed, Tiruchirappalli	1998		DPAP,Collector, Tiruchirappalli	1.40
15.	Prof.SM. Ramasamy	Project “CRUSDE” Crustal Deformation Studies of South India	1998	2001	ISRO, DOS, Bangalore	6.79
16.	Prof.SM.Ramasamy Dr.C.J.Kumanan	Project “EGHARIS” Eastern Ghats Resources, Geohazards Information System	1998	2002	Planning and Development Department, Chennai.	23.00
17.	Prof.SM.Ramasamy Dr.C.J.Kumanan	Project “WEGHARIS” Western Ghats Hazards Resources Information Systems	1999	2006	State Planning & Development Department, Chennai	52.00
18.	Prof.SM.Ramasamy Dr.C.J.KumananDr.K. Palanivel	Project “NRDMS” Natural Resources Data Management System for Pudukottai District, Tamil Nadu	2001	2006	DST, New Delhi	19.18
19.	Prof.SM.Ramasamy Dr.C.J.Kumanan	Project “SEISTA” Seismotectonic Map of Tamil Nadu	2003	2006	DST, New Delhi	23.13
20.	Dr.C.J.Kumanan	Project “LITHYPER” Lithological Discrimination using Hyperspectral Data	2003	2006	Indian Space Research Organisation, Bangalore.	9.74
21.	Prof.SM. Ramasamy	Project “NILA” Nilgiri landslides mitigation through Remote Sensing and GIS	2004	2007	DST, New Delhi	23.00
22.	Prof.SM. Ramasamy	UGC Innovative Programme (M.Sc Geoinformatics)	2004	2009	UGC , New Delhi	36.5
23.	Prof.SM.Ramasamy Dr.C.J.KumananDr.K. Palanivel	Project “TSUNATA” Tsunami Disaster Assessment and Mitigation Strategies for Nagapattinam District, Tamil Nadu	2005	2006	DST, New Delhi	10.00
24.	Prof.SM.Ramasamy Dr.K.Palanivel	Project “S&T-MAP” GIS Mapping of S&T Needs for Tamil Nadu	2005	2007	Tamil Nadu State Council for Science and Technology (TNSCS&T), Chennai	11.50
25.	Prof.SM. Ramasamy	Project “SASTA” Seismicities in Andaman-Sumatra Region and its impacts along Tamil Nadu Coast – A	2006	2007	State Planning Commission, Tamil Nadu	10.00
26.	Prof.SM. Ramasamy	Project “B-CAN” Feasibility study for the revival of Buckingham Canal in Between Chennai and Marakkanam, Tamil Nadu	2006	2007	State Planning Commission, Tamil Nadu	10
27.	Prof.SM.Ramasamy Dr.C.J.Kumanan	Project “SLR-TA” Impact of Projected Sea Level Rise along Tamil Nadu Coast	2006	2007	Space Applications Centre (ISRO), Ahmedabad	14.1
28.	Prof.SM.Ramasamy Dr.C.J.Kumanan	Project “SSS” Multi Disciplinary Study of the	2006	2009	Department of Science &	18

		Shallow Subsurface and the Quaternary Geology of the Cauvery Delta Region			Technology, New Delhi	
29.	Prof.SM. Ramasamy	Project “FIST” Fund for Improvement of Science & Technology Infrastructure in University and Higher Education Institutions	2006	2010	Department of Science and Technology, New Delhi	55.00
30.	Dr.C.J.KumananProf.S M.Ramasamy	Project “RGNDWM-III” Rajiv Gandhi National Drinking Water Mission for Southern Maharashtra State	2007	2009	Rajiv Gandhi National Drinking Water Mission, New Delhi.	36.00
31.	Prof.SM.Ramasamy Dr.K.Palanivel	Project “TIRUMALAS” Tirumala Landslides and Mitigation Strategies	2007	2010	Department of Science and Technology, New Delhi	14.20
32.	Dr. C. Lakshumanan	Environmental Assessment and Eco-Restoration measures in Tamil Nadu Coastal Zone using Remote Sensing and GIS Techniques	2007	2010	Department of Science and Technology, New Delhi	7.11
33.	Prof.SM.Ramasamy / Dr.C.J. Kumanan/ Dr.K.Palanivel/ Dr. J. Saravanel	Project “RES-OIL” Integrated Remote Sensing and GIS technologies for targeting Hydrocarbon locales from Soil tonal and Geochemical anomalies related to Oil and Gas seepage in Selected frontier basins of India	2008	2011	Oil Industry Development Board. New Delhi	498.00
34.	Prof.SM.Ramasamy / Dr.C.J. Kumanan	Project “DMSP” Disaster Management Support Programme - Tsunami and Storm Surge Vulnerability Mapping along Tamil Nadu	2008	2011	Space Application Centre, Ahmedabad	27.01
35.	Prof.SM.Ramasamy/ Dr. K. Palanivel	Project “RES-TAS” Remote Sensing and GIS based Appraisal on Reservoir Siltation in parts of Southern Tamil Nadu	2008	2009	State Planning Commission, Chennai	5.00
36.	Dr. C. Lakshumanan	Land Slide Stability analysis and prediction modeling with landslide occurrences in Nilgiris using Satellite imagery	2009	2012	University Grants Commission, New Delhi	5.83
37.	Dr. C. Lakshumanan	Carbon Sequestration potential in wetlands of Vedaraniyam, South East Coast of India	2009	2012	Department of Science and Technology, New Delhi	24.27
38.	Dr. R. Sakthivel	Watershed Characterization and prioritization for sustainable nature resource management: A case study from Kalrayan Hills, Part of Eastern Ghats using Remote Sensing and GIS	2009	2012	University Grants Commission, New Delhi	8.218
39.	Dr.C.J.Kumanan Dr.K.Palanivel	Project “HRVA” Hazard and Risk Vulnerability Assessment in Tiruchirappalli Urban Limit	2010	2011	Collector, Tiruchirappalli	1.74

40.	Dr.C.J.Kumanan Dr. J. Saravanel	Project “PRACRITI” Models to study the impact of Sea Level Rise on Coastal Environment of India	2010	2013	Space Application Centre, Ahmedabad	15.60
41.	Dr.C.J.Kumanan Dr.K.Palanivel	Project “RGNDWM” Rajiv Gandhi National Drinking Water Mission Phase - IV	2011	2019	National Remote Sensing Centre, Government of India, (NRSC)	28.20
42.	Dr. D. Ramesh	Project “RoSeTTe” Deliniation of Teri/Red sediments, paleo shorelines and land use/cover pattern in vaigai river basin in between Taruvaikulam and Tondi, Tamil Nadu.	2012	2014	Board of Research in Nuclear Sciences (BRNS) Department of Atomic Energy, Government of India	24.75
43.	Dr. J. Saravanel	Project “COMAP” Mapping of placer sand bodies, landforms and Landuse / Land cover pattern using Remote Sensing and GIS in coastal districts of Andhra Pradesh	2012	2016	Board of Research in Nuclear Sciences (BRNS) Department of Atomic Energy, Mumbai	70.78
44.	Dr.K.Palanivel	Project “MAPCO” Mapping of placer sand bodies, landforms and Landuse / Land cover pattern using Remote Sensing and GIS in coastal districts of Odisha and West Bengal	2012	2016	Board of Research in Nuclear Sciences (BRNS) Department of Atomic Energy, Mumbai	71.75
45.	Dr.C.J.Kumanan	Project “PASOKE” Mapping of placer sand bodies, landforms and Landuse / Land cover pattern using Remote Sensing and GIS in coastal districts of Kerala	2012	2016	Board of Research in Nuclear Sciences (BRNS) Department of Atomic Energy, Mumbai	73.10
46.	Dr. D. Ramesh	Project “COASTA” Geomatics based Structure, Landform and Land use land cover mapping for placer mineral exploration in coastal Tamil Nadu	2012	2016	Board of Research in Nuclear Sciences (BRNS) Department of Atomic Energy, Mumbai	82.24
47.	Dr.C.J.Kumanan	UGC SAP-DRS-1 Special Assistance Programme	2012	2017	University Grant Commission (UGC)	60.00
48.	Dr.C.J.Kumanan	Hi-Tech Laboratories	2013	2018	Tamil Nadu Government	250.00
49.	Dr.C.J.Kumanan	DST-PURSE (For the Entire School of Geosciences)	2013	2016	DST, New Delhi	66.00
50.	Dr.C.J.Kumanan Dr. J. Saravanel	Project “DMSP- Phase-II” Storm Surges and Tsunami Vulnerabilities on Tamil Nadu	2013	2016	SAC, ISRO	20.00
51.	Prof.SM.Ramasamy	DST- Geospatial Chair	2015	2016	NRDMS, DST	36.00
52.	Prof.SM.Ramasamy	Project “LSPCR” Compendium on Project Completion Report of NRDMS on Landslide	2015	2016	NRDMS, DST	5.00

On-going Projects: 5 Nos.

S. No.	Principal Investigator	Project Title	Period		Funding Agency	Amount (in lakhs)
			From	To		
1.	Dr.K.Palanivel	RGNDWM – IV Rajiv Gandhi National Drinking Water Mission	2011	2019	National Remote Sensing Centre, Hyderabad	28.20
2.	Dr. J. Saravanavel	Project “LUNAR” Morphological mapping and discrimination and mapping of Lunar Rocks using TMC & HYSI data of Chandrayan-1	2017	2020	The Space Applications Centre, ISRO, Government of India	15.36
3.	Mr.A.Muthamilselvan	Identification of Uranium Concentration in Groundwater and rock types its related health hazards in parts of Salem districts of Central TN	2017	2020	DST-SERB	15.00
4.	Dr. C. Lakshumanan	Coastal Vulnerability due to Climate Change, Sea level rise and Natural Hazard	2018	2021	Ministry of Earth Sciences (MoES)	50.00
5.	Dr. D. Ramesh	Integrated Hydrogeological Investigations in and around the mine lease area of M/S RAMCO Cements Ltd., at Pennadam and Ariyalur - A Geospatial approach	2017	2018	RAMCO Chennai	24.71
6.	Prof.SM.Ramasamy Dr.K.Palanivel Dr.J.Saravanavel	Project “DIGITAL-POOMPUHAR” - Networking Project on “Digital Reconstruction of Ancient Port City Poompuhar, Tamil Nadu, India”	2019	2022	DST, New Delhi	192.049
7.	Dr.J.Saravanavel Dr.K.Palanivel	Project “PUHAR-TECH SLR” - “Tectonic-Sea level rise – Land-ocean interactive dynamics and Defunct of Poompuhar, India”	2019	2022	DST, New Delhi	43.16

Consultancy Projects : 8 Nos.

S. No.	Principal Investigator	Project Title	Period		Funding Agency	Amount (in lakhs)
			From	To		
1.	Prof.SM. Ramasamy	Project “PERANAI” Integrated Geological and Geomorphological Studies for Identifying the Areas of Erosion to Stop Reservoir Siltation in Vaigai - Peranai reservoir	1990	1990	World Bank	0.60
2.	Prof.SM. Ramasamy	Project “VAIGAI” Identification of Erosion Prone Areas in Vaigai catchment Region to Control Siltation in Vaigai Reservoir	1993	1995	World Bank	3.00
3.	Prof.SM. Ramasamy	Project “KUNDAH”	1995	1996	Tamil Nadu	7.50

		Environmental Geomorphology of Kunda hydro Electric scheme			Electricity Board	
4.	Prof.SM.Ramasamy Dr.C.J.Kumanan	Project “FRAQTA” Groundwater Behaviour of Fractured Aquifer Systems of Tamil Nadu	2000	2001	World Bank	15.00
5.	Prof.SM.Ramasamy Dr.C.J.Kumanan	Project “RGNDWM” Preparation of Groundwater Prospect Map for Parts of Kerala State	2002	2003	NRSA Hyderabad	1.92
6.	Prof.SM.Ramasamy Dr.K.Palanivel	Project “FLOOD CON” Base Paper on Flood Conservation and Flood Water Harvesting for Tamil Nadu	2006	2006	State Planning Commission, Chennai	1.00
7.	Dr.K.Palanivel	Disaster Management	2013	2014	IMTI, Trichy	1.97
8.	Dr. D. Ramesh	Integrated Hydrogeological Investigations in and around the mine lease area of M/S RAMCO Cements Ltd., at Pennadam and Ariyalur - A Geospatial approach	2017	2018	RAMCO Chennai	24.71

Collaborative Project : 1 No.

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	Australian Research Council	1997	1998	Project “ POCTEC ” - Visualization of Post-Collision Tectonic Movements of Peninsular India in Collaboration with Melbourne University, Australia	3.5

Appendix II

List of Research Publications since 2013-14

→ 58 Numbers of Research papers published in National and International Journals

1. Kathiravan R, Palanivel K, Smita Priyadarshini Rout, Sudhakar Ch and Ramesh Kumar K, (2018). Delineation of Mineable Heavy Placer Deposits Using Geospatial Technology Along Puri to Iccchapuram Coastal Tract of Odisha State, India. Journal of Applied Science and Computations, ISSN : 10762-5131, Vol. V, Issue XII, PP. 1424 – 1438.
2. SM. Ramasamy, A.Vijay, Dhinesh Selvam. (2018). Geo-anthropogenic aberrations and Chennai floods: 2015, India. Natural Hazards 91(1) pp.1-35.
3. Smita Priyadarshini Rout, Palanivel K and Kathiravan R.(2018). Delineation of Subsurface features of Geological Importance using GPR along Coastal Tract of Puri-Balasore districts of Odisha, India. International - Journal of Applied Science and Computations, Vol. 5, Issue-11, Nov., ISSN No.: 1076-5131, PP. 1081-1090.
4. Karthick.P, and Lakshumanan.C. (2018) "Identification Groundwater recharge sites and suitable recharge structures for Thuraiyur taluk using Geospatial technology". Indian Journal of Geo-Marine Sciences, Vol.47 (10) October 2018, pp2117-2125.
5. Kathiravan R, Palanivel K, Ramesh Kumar K and Sudhakar Ch.(2018). Geospatial Technology Based Detailed Mapping of Coastal Geomorphological Features and Significant Observations – Part of Puri District, Odisha, India. International Journal of Recent Scientific Research, ISSN: 0976-3031. DOI: 10.24327/IJRSR. Vol.9, Issue 4(A), April, pp. 25550-25555.
6. Salaj, S., Ramesh, D., Suresh Babu, D. S., Kaliraj, S. (2018), Assessment of coastal change impact on seawater intrusion vulnerability in Kozhikode coastal stretch, South India using Geospatial technique, Journal of Coastal Sciences, Vol. 5 (1), pp. 27-41.
7. Salaj, S., Ramesh, D., Suresh Babu, D. S., Kaliraj, S. (2018), Impacts of urbanization on groundwater vulnerability along the Kozhikode coastal stretch, Southwestern India using GIS based modified DRASTIC–U Model, Journal of Coastal Sciences, Vol. 5 (2), pp. 1-27.
8. Rajani R, Palanivel K and Selvakumar R.(2018). Delineation of Groundwater Potential Zones Using Subsurface Parameters: An ANP Approach in and Around Tiruttani Area, Tamilnadu, India. International Journal of Pure and Applied Mathematics, ISSN: 1314-3395, Aug. 2018, Vol. 119, No.17, Pp. 575-588.
9. Muralitharan J and Palanivel K.(2018).GIS based Water Quality Index Method for Groundwater Quality Assessment– Using Hydro Geochemical Data: Karur District, Tamil Nadu, India. International Journal of Scientific Research in Science and Technology, Volume 4, Issue 5, Print ISSN: 2395-6011, Online ISSN: 2395-602X, Themed Section: Science and Technology, IJSRST1845170, March 2018, pp 833-842.
10. Smita Priyadarshini Rout, Palanivel K, Ramesh Kumar K and Sudhakar Ch.(2018).Geospatial Technology Based Detailed Mapping of Geomorphic Landforms and Understanding of Migratory Pattern of Rivers In a Part of Mahanadi Delta in Coastal Odisha, India. International Journal of Recent Scientific Research, ISSN: 0976-3031. DOI: 10.24327/IJRSR. Vol.9, Issue 3(D), March, pp. 24919-24924.
11. Saravanavel. J. (2018). Climate Change and Impact of Projected Sea Level Rise along Cauvery Delta, Tamil Nadu, India - A Geomatics Approach. Cloud Publications International Journal of Advanced Remote Sensing and GIS2018, Volume 7, Issue 1, pp.2703-2711.

12. A. Balukkarasu, (2018), "Fluid Inclusion Studies of Charnockites and Garnetiferous-Quartzofeldspathic Gneisses in Vijayapuri Area of Southern Granulite Terrain, Tamilnadu", International Journal of Engineering and Techniques, pp37-41, Vol 4, Issue 2, Mar – Apr 2018, ISSN: 2395-1303, (Impact Factor: 6.925).
13. A. Balukkarasu, (2018), Detailed Petrological and Petrochemical Studies of Ultramafic Rocks in and around Mallanayakkanpalaiyam Area, Mettupalaiyam Ultramafic Complex (MUC), Tamil Nadu with special significance to PGE Mineralization. International Journal of Current Research and Modern Education, pp231-238, Volume 3, Issue 1, 2018, ISSN: 2455 – 5428, (Impact Factor: 6.925).
14. A. Balukkarasu, (2018), Occurrence of Platinum Group of Elements (PGE) in and around Solavanur Area, Mettupalaiyam Ultramafic Complex, Tamil Nadu, South India. International Journal of Applied and Advanced Scientific Research, pp180-186, Volume 3, Issue 1, 2018, ISSN: 2456 – 3080, (Impact Factor: 6.925).
15. A. Balukkarasu, (2018), Petrological and Petrochemical Studies of Ultramafic Rocks in and Around Ayyampalaiyam Area, Mettupalaiyam Ultramafic Complex, Tamilnadu With Special Reference to PGE Mineralization. International Journal of Current Research and Modern Education, pp224-230, Vol 3, Issue 1, 2018, ISSN: 2455 – 5428, (Impact Factor: 5.655).
16. A. Balukkarasu, (2018), Trace Element Studies of Ultramafic Rocks in and Around Ayyampalayam Area, Mettupalaiyam Ultramafic Complex, Tamil Nadu with Special Reference to PGE Mineralization, International Journal of Applied and Advanced Scientific Research, pp175-179, Vol 3, Issue 1, 2018, ISSN: 2456 – 3080, (Impact Factor: 5.655).
17. A. Balukkarasu and B.Santhosh Kumar, (2018), Lithological, Geomorphological and Linear Feature Mapping Using Remote Sensing and GIS - A Tool for Land Use Planning and Effective Coastal Management in Tuticorin Coast of Tamil Nadu, India, International Journal of Research and Analytical Reviews, pp 113 -122, Vol 5, Issue 4, 2018, ISSN: 2349-5138, (Impact Factor: 5.75).
18. A. Muthamilselvan, Nandhini and Balamurugan, (2018), Impact of Land use Land cover Changes on LST; A Case Study from Salem Area, Tamil Nadu using Remote Sensing and GIS., International Journal of Creative Research Thoughts (IJCRT- UGC Listed), Volume 6, Issue 1, pp 898-903, Impact Factor 5.97
19. A.K.Padhi, A. Muthamilselvan and L.S.R. Reddy, Satyaki Samanta, (2018), Uranium Mineralisation in Intra-trappeans from Cretaceous Bagh Group, Alirajpur and Dhar Districts, Madhya Pradesh., Journal of Geosciences Research, Vol. 3, No.1, pp. 37 – 42, No Impact Factor.
20. A. Muthamilselvan, (2018), Sea Surface Temperature Mapping near Kudankulam Nuclear Power Plant, Tamil Nadu, India; A Thermal Remote Sensing Approach. Journal of Emerging Technologies and Innovative Research (JETIR- UGC Listed) June, Volume 5, Issue 6, pp 307 – 313, Impact Factor 5.87
21. A. Muthamilselvan and J. Saravanavel, (2018), Intrinsic Uranium Concentration of Crystalline Rocks in Parts of Central Tamil Nadu, India., Journal of Emerging Technologies and Innovative Research (JETIR-UGC Listed) , Volume 5, Issue 8, pp 1-8, Impact Factor 5.87
22. A. Muthamilselvan, (2018), Identification of structural Controlled mineralisation along the Koratti shear zone of central Tamil Nadu; a remote sensing and GIS Approach, , International Journal of Research and Analytical Reviews (IJRAR- UGC Listed), Volume 5, Issue 4, pp 125 -133, Impact Factor 5.75.
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Appendix III

Programme Structures (2 yr., M.Tech., 6 yr. Int. M.Tech., & Ph.D)

(a) M.Tech. GEOLOGICAL REMOTE SENSING AND GEOINFORMATICS

Se	Course Code	Course title	L	T	P	C	Marks		
							Int	Ext	Total
I	08MTRS-11	Aerial Photography and Photogrammetry	4			4	25	75	100
	08MTRS-12	Principles of Satellite Remote Sensing	4			4	25	75	100
	08MTRS-13	Digital Image Processing	4			4	25	75	100
	08MTRS-14	Geographic Information System	4			4	25	75	100
	08MTRS-15	Practical- Aerial and Satellite Remote Sensing	-		8	4	40	60	100
	08MTRS-16	Practical – Digital Image Processing and Geographic Information System	-		8	4	40	60	100
II	08MTRS-21	Remote Sensing & GIS in Geology	4			4	25	75	100
	08MTRS-22	Remote Sensing & GIS in Geomorphology	4			4	25	75	100
	08MTRS-23	Practical – Remote Sensing& GIS interpretation in Geology	-		8	4	40	60	100
	08MTRS-24	Practical – Remote Sensing& GIS interpretation in Geomorphology	-		8	4	40	60	100
	08MTRS-25	Elective –I	4		2	5	25	75	100
	08MTRS-26	Elective-II	4		2	5	25	75	100
III	08MTRS-31	Remote Sensing & GIS in Mineral & Hydrocarbon exploration	4			4	25	75	100
	08MTRS-32	Remote Sensing & GIS in water resources	4			4	25	75	100
	08MTRS-33	Remote sensing & GIS in Geohazards	4			4	25	75	100
	08MTRS-34	Practical- Remote sensing& GIS interpretation for mineral, hydrocarbon, water resources and Geohazards	-		8	4	40	60	100
	08MTRS-35	Elective –III	4		2	5	25	75	100
	08MTRS-36	Elective-IV	4		2	5	25	75	100
	08MTRS-37	Mini project				4	25	75	100
IV	08MTRS-41	Major Project				10	150	150	300
		Total Credit				90			2200

ELECTIVE COURSES

Course Code	Course Title
08MTRS-25	1. Mathematics and Statistics Methods
08MTRS-26	2. Mapping Methods, GPS & Cartography
08MTRS-35	3. Computer programming for Geoinformatics
08MTRS-36	4. Internet & WEB GIS
	5. Radar Image processing
	6. Geoinformatics in Marine Geology and Oceanography
	7. Geoinformatics in integrated Coastal Zone Management
	8. Geoinformatics in Infrastructure Development
	9. Geoinformatics in Environment and Engineering Geology
	10. Database management System (DBMS)

(b) M.Tech., GEOLOGICAL TECHNOLOGY AND GEOINFORMATICS
(Regular-Revised from the academic year 2017-18)

Se m	Course	Coursetitle	L	T	P	C
I	MTILC-0101 (Language course-1)	Ariviyal Tamil / Adipadai Tamil-I	3	-	-	3
	MTILC-0102	English for Communication-I	3	-	-	3
	MTISC-0103 (Science Course-1)	Mathematics-I-Theory & Tutorial	3	2	-	4
	MTISC-0104	Physics-I-Theory & Practical	4	-	2	5
	MTISC-0105	Chemistry-I-Theory & Practical	4	-	2	5
	MTISC-0106	Biology for Engineers	4	-	2	5
	Total		21	2	6	25

II	MTILC-0201	Ariviyal Tamil / Adipadai Tamil-II	3	-	-	3
	MTILC-0202	English for Communication-II	3	-	-	3
	MTISC-0203	Mathematics-II-Theory & Tutorial	3	2	-	4
	MTISC-0204	Materia Science	3	-	-	3
	MTIEC-0205	Engineering Mechanics	3	-	-	3
	MTISC-0206G (Core Course-1)	Introduction to Geotechnology	3	-	-	3
	MTIGC-0207 (General Course-1)	Value Education (UGC Syllabus)	2	-	-	2
	MTIGC-0208	Environmental Science	2	-	-	2
	MTIEC-0209	Computer Lab-C,C++, etc.	-	2	2	2
	MTIEC-0210	Engineering Graphics Lab	-	-	2	1
	Total		22	4	4	26

Sem	Course	Course Title	L	T	P	C	PreRequi- site	CoRequi- site
III	MTIGT0301	Physical Geology and Geodynamics	3	-	-	3		
	MTIGT0302	Surveying and Cartography	2	-	2	3		
	MTIGT0303	Aerial Remote Sensing and Photogrammetry	3	-	-	3		

	MTIGT0304	Principles of Remote Sensing	3	-	-	3		
	MTIGT0305	Practical: Aerial and Satellite Remote Sensing	-	-	4	2		
	MTIGT0306	Crystallography and Mineralogy	4	-	-	4		
	MTIGT0307	Practical: Crystallography & Mineralogy	-	-	4	2		
	MTIGT0308	Paleontology	3	-	-	3		
	Total		18	-	10	23		

IV	MTIGT0401	Digital Image Processing	3	-	-	3		
	MTIGT0402	Practical: Digital Image Processing	-	-	4	2		
	MTIGT0403	Igneous and Metamorphic Petrology	4	-	-	4	303, 304	
	MTIGT0404	Practical : Igneous and Metamorphic Petrology	-	-	4	2		403
	MTIGT0405	Sedimentary petrology	4	-	-	4		
	MTIGT0406	Practical: Paleontology and Sedimentary Petrology	-	-	4	2	308	405
	MTIGT0407	Elective-I	3	-	-	3		
	MTIGT0408	Elective-II	3			3		
	Total		17	-	12	23		

V	MTIGT0501	Geographic Information Systems	3	-	-	3		
	MTIGT0502	Practical: Geographic Information Systems	-	-	4	2		
	MTIGT0503	Stratigraphy and Indian Geology	3	-	-	3	301	
	MTIGT0504	Structural Geology	3	-	-	3	304, 401	
	MTIGT0505	Practical: Structural Geology	-	-	4	2		504
	MTIGT0506	Geomorphology and Modern Geodynamics	3	-	-	3	301	
	MTIGT0507	Practical: Geoinformatics in Geomorphology	-	-	4	2		506
	MTIGT0508	Elective-III	3	-	-	3		
	MTIGT0509	Elective-IV	3	-	-	3		
	Total		18	-	12	24		

VI	MTIGT0601	Economic Geology	4	-	-	4	306, 403	
	MTIGT0602	Geoinformatics in Mineral Exploration	4	-	-	4	304, 501	601

	MTIGT0603	Practical : Economic Geology & Mineral Exploration	-	-	4	2		601, 602
	MTIGT0604	Geoinformatics in Water Resources Management	4	-	-	4	403, 405, 504, 506	
	MTIGT0605	Practical : Geoinformatics in Water Resources Management	-	-	4	2		604
	MTIGT0606	Elective-V	3	-	-	3		
	MTIGT0607	Elective-VI	3	-	2	3		
	MTIGT0608	Geological Field Training	-	-	4	2		
	Total		18	-	10	24		

VII	MTIGT0701	Petroleum Geology	3	-	-	3	304, 401, 405, 501, 503	
	MTIGT0702	Engineering Geology	3	-	-	3	403, 404, 501, 503	
	MTIGT0703	Practical: Petroleum Geology and Engineering Geology	-	-	4	2		701
	MTIGT0704	Geoinformatics in Natural Disasters Mitigation and Management	4	-	-	4	504, 506	
	MTIGT0705	Coal Geology	3	-	-	3		
	MTIGT0706	Elective-VII	3	-	-	3		
	MTIGT0707	Elective-VIII	3	-	-	3		
	MTIGT0708	Industrial /Mini project in Geological Technology and Geoinformatics	-	-	4	2		
	Total		18	-	8	23		

VIII	MTIGT0801	Major Project in Geological Technology and Geoinformatics	-	-	30	12		
		Total credits	180					
L-Lecture Hour; T-Tutorial; P-Practical; C-Credit								

Total credits for B.Tech., Programme : 180

IX	MTIGT0901	Hyperspectral Remote Sensing	4	-	-	4	304, 401	
	MTIGT0902	Thermal and Microwave Remote Sensing	4	-	-	4	304, 401	

	MTIGT0903	Practical:Hyperspectral, Thermal & Microwave Remote Sensing	-	-	4	2		901 902
	MTIGT0904	Geoinformatics in Urban Planning	4	-	-	4	401	
	MTIGT0905	Geoinformatics in Coastal Dynamics and Coastal	4	-	-	4	501, 506	
	MTIGT0906	Elective-IX	4	-	-	4		
	MTIGT0907	Elective-X	4	-	-	4		
	Total		24	-	4	26		

X	MTIGT1001	Advanced Igneous and Metamorphic Petrology	4	-	-	4	303, 304, 403	
	MTIGT1002	Computer Programming in Geological Technology	4	-	-	4	501	
	MTIGT1003	GISbased3DVisualizationin Geological Technology	4	-	-	4	501	
	MTIGT1004	Remote Sensing Application in Planetary Studies	4	-	-	4		
	MTIGT1005	Practical: Advanced Igneous and Metamorphic Petrology	--	--	4	2	1001	
	MTIGT1006	Elective-XI	4	-	-	4		
	MTIGT1007	Elective-XII	4	-	-	4		
	Total		24	-	4	26		

XI	MTIGT1101	Sedimentary Basins of India	4	-	-	4		
	MTIGT1102	WEBGIS and Mobile Mapping	4	-	-	4		
	MTIGT1103	Data Base Management Systems	4	-	-	4		
	MTIGT1104	Query Based Information System and Spatial Decision Support System	4	-	-	4		
	MTIGT1105	LIDAR and Unmanned Aerial System	4	-	-	4		
	MTIGT1106	Elective-XIII	4	-	-	4		
	MTIGT1107	Mini Project in Geological Technology and Geoinformatics		-	4	2		
	MTIGT1108	Industrial cum Geological Field Visit		-	4	2		
	Total		24	-	8	28		

XII	MTIGT1201	Major Project in Geological Technology and Geoinformatics	-	--	30	10		
	Total credits		90					

TOTAL CREDITS FOR M.Tech., PROGRAMME : 270

LIST OF OPTIONAL ELECTIVES

M.Tech., GEOLOGICAL TECHNOLOGY AND GEOINFORMATICS

Semester IV (Electives – I & II) – Course Codes : MTIGT0407 & MTIGT0408

1. Geostatistical and Geomathematical concepts
2. Mining Geology
3. Micro Palaeontology
4. Statistics in Geotechnology

Semester V (Electives – III & IV) – Course Codes : MTIGT0508 & MTIGT0509

5. Geophysics
6. Geochemistry
7. Industrial Geology
8. Sequence Stratigraphy

Semester VI (Electives – V & VI) – Course Codes : MTIGT0606 & MTIGT0607

9. Computer Applications in Geological Technology
10. Marine Geology and Geoinformatics in Sea bed Exploration
11. Mineral processing Technology
12. Applied Hydrogeochemistry

Semester VII (Elective – VII & VIII) – Course Codes : MTIGT0706 & MTIGT0707

13. Geoinformatics in Environmental Impact Assessment
14. Geoinformatics in Soil Science
15. Geoinformatics in Earthquakes
16. Geoinformatics in Quaternary Geology

Semester IX (Electives – IX & X) – Course Codes : MTIGT0906 & MTIGT0907

17. Himalayan Geology and Geotectonics
18. Nuclear and Isotope Geology
19. Geoinformatics in Desert Geotechnology
20. Geoinformatics in Agriculture and Forestry

Semester X (Electives – XI & XII) – Course Codes : MTIGT006 & MTIGT1007

21. Sustainable development
22. Geoinformatics in Climate Change
23. Geodesy
24. Geoinformatics in Glacial Geotechnology

Semester XI (Elective - XIII) – Course Codes : MTIGT1106

25. Current Trends in GIS
26. Geoinformatics in Operations Research
27. Object Oriented Information System.

(c) Ph.D., GEOLOGICAL REMOTE SENSING

Courses	Course Codes	Course Titles	Credits
Course I	PHDGRS	Research Methodology	4
Course II	MTIGT0501	Geographic Information Systems	4
	MTIGT0506	Geomorphology and Modern Geodynamics	
	MTIGT0604	Surface and Groundwater hydrology and Management	
	MTIGT0704	Geoinformatics in Geohazards	
	MTIGT0901	Hyperspectral Remote Sensing in Geotechnology	
	MTIGT0904	Advanced Digital Image Processing in Geotechnology	
	MTIGT0905	Geoinformatics In Coastal Dynamics And Coastal Management	
Course III	Topic of Pursuing Research		
	MTIGT0301	Physical Geology & Geodynamics	4
	MTIGT0304	Satellite remote sensing	
	MTRS-21	Remote Sensing & GIS in Geology	
	MTRS-22	Remote Sensing & GIS in Geomorphology	
	MTRS-32	Remote Sensing & GIS in water resources	
	MTRS-12	Principles of Satellite Remote Sensing	